EDLD 5364 – Teaching With Technology

Assignment 1 – Reflection

When I viewed the videos and read the articles that were included in this week’s assignments, I began to think about all the methods and reasons that we use and integrate technology with instruction in our classrooms. Through the videos and the articles, we were able to examine the difference between classrooms utilizing technology resources as part of classroom instruction and classrooms that do not use technology as part of their classroom instruction. This week’s assignment focused on the exploration of three different learning theories. The learning theories we examined this week were constructivism, connectivism, and the cyborg theory. Bygotski, a Russian psychologist developed the concept of constructivism which is explained as the ability for a learner to gain new information from instruction, through reading, hearing, or collaborating about this new information. While the learner is gaining this new information they are combining their prior knowledge with the new information to create new knowledge, so sometimes this process is also referred to as constructing new knowledge.

The second learning theory is connectivism and considers learning a more multifaceted process than just building knowledge within an individual. Using connectivism, learning becomes a more constant process and the practice of knowing where to find knowledge from various resources. It also includes acquiring knowledge from other associations with individuals, social interaction, and technology-based resources.

The third theory is called the cyborg theory. The principals of this theory are based on the way that humans and machines interact with each other. This theory’s studies show that there is a correlation between the effects that technology devices have on humans gaining knowledge. Student learning is impacted by listening to videos, exploring reading and digging deeper into research resources and this impact affects the amount of information that students will learn.

For many years, various studies have been done to discover the best methods for technology usage to support learning. (Bradford, 2009) It has been found that one-way learning such as books, blackboards, and other one way communications such as TV and radio are not as effective to support learning in the classroom. Many of the newer technologies are interactive and can create environments in which students can learn by doing, receive feedback, and continually refine their understanding and building of new knowledge (Barron et al., 1998)

In the introduction portion of *Using Technology with Classroom Instruction that Works*, the author “points out how technology can give students more control over their own learning.”(Piitler, Hubbell, Kuhn, & Malenoski, 2007) “Integrating technology into instruction tends to move classrooms from teacher-dominated environments to ones that are more student-centered and this is supported repeatedly in the literature.” (Adams & Burns, 1999) A curriculum rich in technology can even be utilized to assist the learning process of at-risk students and students with modifications. Students learn through the vivid images and sounds that better meet all students’ needs.

I really enjoyed the reading from Connecting Student Learning and Technology. This article states that, “Schools are serving a more ethnically, linguistically, and culturally diverse student body than ever before.” (Adams & Burns, 1999) This is so true. I teach at a Title I campus and we face the many challenges of reaching all students every day. Our campus also houses an ABU unit and accommodates for students with severe disabilities. Our principal reminds us daily not to ever give up. Keep making every effort to search for ways to keep all of our students engaged. This article talks about how teachers are relying more and more on technology to keep up with the constant changes.

“Constructivists consider learning to be an individual and personal event. The following principles are based on the work of various constructivist theorists and are offered as a framework for this discussion.” (Adams & Burns, 1999) These principals are copied directly from Connecting Student Learning and Technology and I feel that they best explain the concepts of the constructivist learning theory.

* **Learners bring unique prior knowledge, experience, and beliefs to a learning situation.** Every learner has experiences that influence his or her understanding of the world. Those unique experiences are the foundation for learning; they provide opportunities for personal connections with new content.
* **Learning is internally controlled and mediated.** Learners take in information, process it to fit their personal frameworks, and build new understanding. That knowledge construction occurs internally, in the private domain of each individual.
* **Knowledge is constructed in multiple ways, through a variety of tools, resources, experiences, and contexts.** Constructivist learning theory tells us that we learn in a variety of ways. The more opportunities we have, and the more actively engaged we are, the richer our understanding. Good teachers have always used experience as a valuable instructional tool; that is why we arrange field trips and hands-on projects. It is why an internship or apprenticeship is essential to the completion of most vocations, including teaching.
* **Learning is a process of accommodation, assimilation, or rejection to construct new conceptual structures, meaningful representations, or new mental models.** Every person is surrounded by an infinite variety of images, ideas, information, and other stimuli that provide raw material for thought and understanding. If new information matches the learner's existing understanding, it is easily assimilated. If it does not match, the learner must determine how to accommodate it, either by forming new understanding, or rejecting the information.
* **Learning is both an active and reflective process.** Learners combine experience (action) and thought (reflection) to build meaning. Both parts must be present to support the creation of new knowledge.
* **Social interaction introduces multiple perspectives through reflection, collaboration, negotiation, and shared meaning.** In many situations, learning is enhanced by verbal representation of thoughts--it helps to speak about an idea, to clarify procedures, or float a theory to an audience. The exchange of different perceptions between learners enriches an individual's insight. (Adams & Burns, 1999 )

The article explains how to compare and contrast the differences between the teacher-centered classroom and the learner-centered classroom. It points out that in a teacher centered classroom or traditional classroom, the teacher may read from their textbook and students might be given a blank handout to fill in information. It describes this classroom scenario as a very one-sided learning process. But in contrast, it describes the learner-centered classroom where a teacher begins by engaging the students by asking an open-ended intriguing questions about the topic they will discuss. The teacher sparks their interest and inspires them to want to learn more about the topic. Then she is able to check for student understanding of the topic by questioning the students. The students are able to watch a video about the topic and the students then can plan colloaborative about the subject area of the given topic. The teacher crosses over into different areas of the curriculum with the project. The students are engaged in the learning process and learn more by their own investigation into the subject area. These students have a stake in their own learning process. The difference between a teacher centered classroom and the learner centered classroom, is that in a learner centered classroom, the students are in charge of their own learning process. They learn more collaboratively working to use technology resources to help them gain access to the learning process. Sometimes teachers feel that the constructivist method of teaching is not really teaching. The teacher sometimes feels that they have lost control of their classroom. It may appear that students are talking to one another during the collaborative process. They may fear that a principal may walk in and that the classroom is too noisy or out of control. But, in fact, the students who are discussing the assignment and working together to solve the lesson are possibly learning more than if the teacher were conducting a lecture. The teacher that has control of the classroom experience and allows the students to work together collaborately on the lesson topic can tell when the students are working on the subject matter and if students get too far off topic can go by each group asking student questions to bring them back to the lesson topic. These collaborative learner-center methods have proven to work in the classroom and the students benefit greatly from the process.

The article about social networking technologies that we read during this assignment is written by Dallas McPheeters. The article discusses the relevance of using social networking technologies in education. McPheeters points out that there is a constant struggle in the adoption of new technologies. (McPheeters, 2009) There are those educators that readily accept new technologies and there are those that fear the use of emerging new technologies. McPheeters points out that social networks and networking are prime examples of new technologies that are not readily accepted by all educators. (McPheeters, 2009) He suggests that “real change or shifts do not occur with the introduction of new technologies, but with the large scale adoption of a new technology.” (McPheeters 2009)

Many new technologies come with a great deal of controversy. A newer technology that has been under a great deal of controversy are the social networks. Social networking has gone past the personal, spare-time use, as McPheeters points out to full scale corporate communication. (McPheeters 2009) This reality that social networking is becoming the norm takes a new context and scares many. Since so many corporations have now adopted social networking to attract employees, market their products, and even find vendors / manufacturers, it becomes more necessary to include this technical phenomenon into the education process. It becomes our responsibility to educate our learners on new technology advances so that they may be ready for the 21st century job market. McPheeters points out that the Cyborg theory will be the next adaptation necessary. (McPheeters, 2009) He says that learning how to learn will become the new curriculum because what we know will become decreasingly useful. The Cyborg learning theory will allow the next generation to assimilate their destiny and be educated being the examples for future generations. (McPheeters, 2009) In our discussion board this week, Jeanie commented that she “agrees that social networking has been labeled as a scary and dangerous thing. Many parents and administrators are scared to allow their students or teachers to use these Web 2.0 tools in the classroom. This is unfortunate. School districts block access to many useful and important tools that can enhance education and support a variety of learning styles. Understanding of the usefulness of these tools, taking proper safety procedures, and teaching are students to responsible learners can help to reduce the number of inappropriate uses of these sites.” Regina commented that “social networking sites facilitate individuals to procure information on any subjects from anywhere. These sites also make it easier and faster to collect the information. Although some organizations are preventing employees from accessing such sites, the smart ones are deploying secure Web gateway technology combined with acceptable use policies to keep the organization and their employees safe, while also providing a flexible working environment.”

I agree that we have to help our students get ready for the 21st century. We as educators have a responsibility to our students to provide a learning environment that is equipped with the technology that we have available to us. All students learn differently and students bring different prior knowledge and experience to the classroom with them. Technology helps give us the ability to provide many collaborative learner-center methods for students to learn in and these methods have proven to work in the classroom and the students benefit greatly from the process. I like what Shendolyn said in the discussion board this week. She suggested that we need to begin “thinking outside the box” when it comes to teaching our students. She said that she feels “that you must enhance your teaching style to appeal to all types of learners. It’s like a pair of jeans that you bought last year; however you feel that you cannot wear them anymore because they are out of style or season. The question is are you going to throw out those old jeans or are you going to pair them with a nice new fashionable shirt and make you a new outfit out of something old and something new?” This “blue jeans” visual image that Shendolyn used in the discussion board this week is so true and gives us an example of transitional technology use according to Dr. Mason. We do need to use what technology we have available to us to think outside the box and trend our teaching styles to appeal to all types of learners so that we are able to produce a learner-centered teaching environment that appeals to as many students as possible.

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